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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/075,866	02/13/2002	Jochen Peters	DE010031	9433

24737   7590   03/02/2005

PHILIPS INTELLECTUAL PROPERTY & STANDARDS
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EXAMINER
SKED, MATTHEW J

ART UNIT	PAPER NUMBER
2655	

DATE MAILED: 03/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**.   2b)☐ This action is non-final.

3)☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *7-9* is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☒ Claim(s) *1-6* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *13 February 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All b)☐ Some * c)☐ None of:

       1.☒ Certified copies of the priority documents have been received.

       2.☐ Certified copies of the priority documents have been received in Application No. _____ .

       3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date *2/13/02*.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other: _____ .

DETAILED ACTION

Specification

1.   The disclosure is objected to because of the following informalities: the specification is missing the headings: "BACKGROUND OF THE INVENTION", "DESCRIPTION OF THE RELATED ART", "SUMMARY OF THE INVENTION", "BRIEF DESCRIPTION OF THE DRAWINGS", and "DETAILED DESCRIPTION".

2.   The subscripts for the characters of the equations throughout the application are not consistently treated as subscripts. For example on page 2 , line 5, " $m^{\alpha^{(n)}}, m^{\beta^{(n)}}$ " should be changed to -- $m_\alpha^{(n)}, m_\beta^{(n)}$ -- and on the same line " $m\alpha$, and $m\beta$ " should be changed to -- m_α and m_β --. Similar changes should occur throughout the specification.

3.   On page 2, lines 13 and 14 "Fig. 5" should be changed to –Fig. 4--.

4.   On page 4, line 15 the specification refers to particular claim numbers which is not acceptable to the Office.

        Appropriate correction is required.

Claim Objections

5.   Claims 1-6 are objected to because of the following informalities: The subscripts for the characters of the equations are not consistently treated as subscripts. For example in the first claim " $Ai(n)$ " should be changed to -- $A_{i(n)}$ --.

        Appropriate correction is required.

Allowable Subject Matter

6.   Claims 1-9 are allowed.

7.   The following is a statement of reasons for the indication of allowable subject matter: Claim 1 recites the combination of calculating iteration values for free parameters in the maximum-entropy speech model as a function of the n-th iteration value of the free parameter, a desired boundary value, and the n-th iteration boundary value wherein the free parameter is calculated for an attribute from a currently assigned attribute group where there are a total of m speech model attribute groups .

8.   Simons et al. ("Distant Bigram Language Modeling Using Maximum Entropy") teaches a method for calculating iteration values for free parameters as a function of the previous iteration value and a boundary value (auxiliary function, page 787, 1st col., last paragraph to page 788, col. 1, 2nd paragraph).

9.   Rosenfeld teaches a method for training a language model using a maximum entropy approach that uses boundary values for the iterative values for free parameters (associated constraint, page 205, equation 27).

10.   None of the prior art on record teaches or suggests partitioning the speech model into a number of speech model attribute groups and calculating the iteration values for free parameters for every attribute within a currently assigned attribute group. Therefore, it would not have been obvious to one of ordinary skill in the art at the time of invention to modify the system of Simons and Rosenfeld to arrive at the present invention.

11.   Claims 2-9 are allowable because they further limit the claim in which they refer.

Conclusion

12.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Chen et al. ("Efficient Sampling and Feature Selection in Whole Sentence Maximum Entropy Language Models"), Beyerlein ("Discriminative Model Combination"), Goodman et al. (U.S. Pat. 6,697,769), Kneser et al. (U.S. Pat. 6,157,912) and Klakow (U.S. Pat. 6,314,400) teach alternative methods for calculating free parameters for a maximum entropy speech model.

13.   This application is in condition for allowance, except for informalities recited above.

Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew J Sked whose telephone number is (703) 305-8663. The examiner can normally be reached on Mon-Fri (8:00 am - 4:30 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Talivaldis Smits can be reached on (703) 306-3011. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

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you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

MS
02/17/05

DAVID L. OMETZ
PRIMARY EXAMINER